## (19) World Intellectual Property Organization

International Bureau



# 08 JUN 2005

### (43) International Publication Date 24 June 2004 (24.06.2004)

**PCT** 

## (10) International Publication Number WO 2004/054227 A3

(51) International Patent Classification7: 5/50, 5/63

H04N 5/44,

(21) International Application Number:

PCT/US2003/038895

- (22) International Filing Date: 5 December 2003 (05.12.2003)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/431,621

6 December 2002 (06.12.2002)

- (71) Applicant (for all designated States except US): THOM-SON LICENSING S.A. [FR/FR]; 46, Quai A. Le Gallo, F-92648 Boulogne (FR).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): ENGLERT, John. Walter [US/US]; 4600 Allen Drive, Carmel, IN 46033
- (74) Agents: TRIPOLI, Joseph, S. et al.; c/o Thomson Licensing Inc., Two Independence Way, Suite #200, Princeton, NJ 08540 (US).

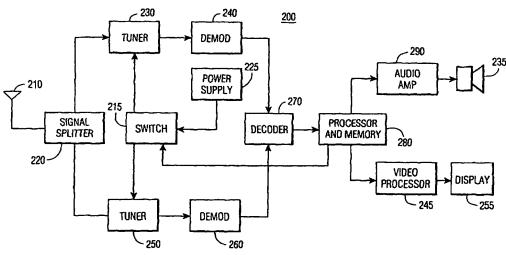
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 13 January 2005

[Continued on next page]

#### (54) Title: TUNER POWER DISSIPATION REDUCTION IN A STANDBY MODE



(57) Abstract: An apparatus such as a television signal processing apparatus 200 provides a means to control power dissipation by high speed signal processing circuitry associated with tuners 230, 250 while continuing to receive auxiliary data such as administrative data, guide data, or emergency alert notifications. According to an exemplary embodiment, the television signal processing apparatus 200 comprises a first tuner 230 for tuning a first signal when the television signal processing apparatus is in a first modem of operation and where power is removed from the first tuner 230 during a second mode of operation, a second tuner 250 for tuning a second signal when the television signal processing apparatus 200 is in a first mode of operation and a second mode of operation, wherein power is applied to the second tuner 250 for a portion of the time the television signal processing apparatus 200 is in the second mode of operation and the portion of the time the television signal processing apparatus 200 is in the second mode of operation is less than 100 percent of the time the television signal processing apparatus 200 is in the second mode of operation.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/38895

A. CLASSIFICATION OF SUBJECT MATTER  IPC(7) : H04N 5/44, 5/50, 5/63  US CL : 348/731, 732, 730, 725, 729, 733; 334/47, 52, 11; 455/183,2, 179,1, 191,1, 343,1; 725/38, 40				
US CL : 348/731, 732, 730, 725, 729, 733; 334/47, 52, 11; 455/183.2, 179.1, 191.1, 343.1; 725/38, 40  According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED				
Minimum documentation searched (classification system followed by classification symbols) U.S.: 348/731, 732, 730, 725, 729, 733; 334/47, 52, 11; 455/183.2, 179.1, 191.1, 343.1; 725/38, 40				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  EAST  .				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category * Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No				
X	US 6,337,719 B1 (CUCCIA) 08 January 2002, Fig. 1, column 2 lines 5-63.			1-22
x	US 6,452,644 B1 (SHIMAKAWA et al) 17 September 2002, Fig. 5, column 6 lines 1-65.			1-22
Further	documents are listed in the continuation of Box C.		See patent family appear	
	pecial categories of cited documents;		See patent family annex.	
"A" document defining the general state of the art which is not considered to be of particular relevance		- <b>1</b>	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	
"B" earlier application or patent published on or after the international filing date		"X"	document of particular relevance; the considered novel or cannot be considered step when the document is taken alone	red to involve an inventive
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)		"Y"	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	
1	t referring to an oral disclosure, use, exhibition or other means	*& <b>*</b>	document member of the same patent	
"P" document published prior to the international filing date but later than the				
Date of the actual completion of the international search 30 October 2004 (30.10.2004)		Date of mailing of the international search report  0 5 NOV 2004		
Name and mailing address of the ISA/US Authorized officer				7.1
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450		Felephone No. (703) 308 9571		
Facsimile No. (703)305-3230				
Form PCT/ISA/210 (second sheet) (July 1998)				